

REMARKS

Applicant has carefully studied the references cited by the Examiner and the Examiner's comments relative thereto.

Claims 1-23 have been cancelled.

Claim 24 has been amended.

Claims 24-43 remain in the application.

35 U.S.C. 103(a)

The Examiner rejected Claims 24-29, 31-41 and 43 under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (U.S. Pat. Appl. Pub. No. 2002/0040940) in view of Mitchell et al. (U.S. Pat. No. 6,095,251). The Examiner also rejected Claim 30 under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (U.S. Pat. Appl. Pub. No. 2002/0040940) in view of Mitchell et al. (U.S. Pat. No. 6,095,251) and in further view of Saum et al. (U.S. Pat. No. 5,128,881). The Examiner further rejected Claim 42 under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (U.S. Pat. Appl. Pub. No. 2002/0040940) in view of Mitchell et al. (U.S. Pat. No. 6,095,251) in further view of Ford et al. (U.S. Pat. No. 6,029,751).

The Examiner continues to rely on the applicant's published application U.S. Pat. Appl. Pub. No. 2002/0040940 as the primary reference in rejecting the claims of record. In response to the amendments and arguments filed May 4, 2010, the Examiner contends that although the Wagner et al. reference does not teach the time for lowering the oxygen content or the contingency of the time upon the base inertization level, the Mitchell et al. reference (U.S. Pat. No. 6,095,251) does teach a preset time contingent upon a base inertization level (See Mitchell et al. col. 2, lines 42-44, stating that a predetermined time is typically aircraft specific).

Independent Claim 24 has been amended to recite:

24. (Currently Amended) Inerting method for extinguishing a fire in a closed room ("target area") in which an oxygen content in the closed room is reduced within a given time (x) to a specific inerting level, wherein:
said inerting level is kept to a certain level within a given regulation range;
said inerting level corresponds to said re-ignition prevention level (R);
an upper end of said regulation range is limited by an upper threshold of oxygen content and a lower end of said regulation range is limited by a lower threshold of oxygen content;
said_upper threshold of oxygen content in the regulation range is smaller than or, at maximum, equal to said re-ignition prevention level (R);
the time (x) for lowering the oxygen content to said inerting level is preset; and
the time (x) for lowering the oxygen content to said inerting level is selected depending on an oxygen content in the closed room at a time a flooding begins for lowering the oxygen content to said inerting level.

Specifically, Claim 24 has been amended to include the limitations, "an upper end of the regulation range limited by an upper threshold of oxygen content and a lower end of the regulation range limited by a lower threshold of oxygen content". In this regard, it is clarified that the inerting level is kept to a certain level within a given regulation range which is defined by an upper end in one extreme and a lower end in another extreme.

Furthermore, the Claim 24 has been amended to recite the time for lowering the oxygen content to the inerting level is selected "depending on an oxygen content in the closed room at a time a flooding begins for lowering the oxygen content to the inerting level". In this regard, it is clarified that the inert gas profile curve, i.e. the lowering of the target area's oxygen content when inerting begins, exhibits a slope which is depending from the oxygen content in the closed room at the time the flooding begins. At this respect, reference is made to Figs. 4 and 5 of the present application. In detail, Fig. 4 of the present application shows a flooding profile in one embodiment of the inventive inerting method. At the time the flooding begins, the oxygen content in the closed room is 21 % by volume. On the other hand, in the flooding profile depicted in Fig. 5, the oxygen content in the closed room is only 17 % by volume at the time the flooding begins.

According to the present invention, in the embodiment depicted in Fig. 5, the inert gas profile curve, i.e. the lowering of the target areas oxygen content when inerting begins, exhibits a clearly lower slope compared with the inert gas profile curve depicted in Fig. 4.

In the instant Office Action, the Examiner indicates that the specific feature, according to which the time for lowering the oxygen content to the inerting level is selected depending on an oxygen content in the closed room at the time the flooding begins for

lowering the oxygen content to the inerting level, is already known from the prior art. In this regard, the Examiner has drawn attention to U.S. Pat. No. 6,095,251 (hereinafter: Mitchell et al.), and in particular to column 2, lines 42 to 44 thereof.

We cannot agree with the assessment of the Examiner. In this regard, we would like to draw attention to the fact that Mitchell et al. discloses an inerting method for extinguishing a fire in an engine nacelle. When a fire occurs in an engine nacelle, the pilot performs two tasks to the aircraft: first of all, the fuel to the engine is shut off. Thereafter, an on-board fire extinguisher is activated in order to discharge an agent into the nacelle. In this regard, reference is made to column 2, lines 22 to 25 of Mitchell et al.

Referring to column 2, lines 31 to 33, re-ignition must be prevented after the nacelle fire is extinguished. Preventing an extinguished fire from re-igniting is called "suppression". Referring to column 2, lines 36 to 40 of Mitchell et al., the suppression time is dependent on the time it takes the air flow to cool the surface below the ignition temperature. Therefore, the inerting agent must be able to extinguish the fire and keep it out for a predetermined time, i.e. the suppression time.

Hence, the reference to Mitchell et al. discloses that the time period which is necessary to keep the oxygen content in the closed room (engine nacelle) to a re-ignition preventing level is depending from the suppression time which, in turn, is the time it takes the air flow to cool the surface below the ignition temperature. However, contrary to the present application, Mitchell et al. is completely silent with respect to the time within which the oxygen content in the enclosed room (engine nacelle) must be reduced to the inerting level in order to extinguish the fire.

In addition, Mitchell et al. clearly does not disclose that the time for lowering the oxygen content to the inerting level is selected depending on the oxygen content in the closed room (engine nacelle) before a fire occurs in this room.

In contrast, according to the present application, the time for lowering the oxygen content to the inerting level for extinguishing a fire is selected depending on the oxygen content in the closed room before the fire occurs, i.e. at the time the flooding begins for lowering the oxygen content to the inerting level, as recited in amended Claim 24.

Due to this distinguishing feature, Mitchell et al. cannot cure the deficiencies of prior-art document US 2002/0040940 to Wagner et al.

Conclusion:

In these circumstances, the Applicant believes that the amended claims are allowable. Accordingly, a Notice of Allowance is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Applicant's representative at (419) 874-1100.

Respectfully submitted,

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